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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,006	05/15/2006	Jurgen Baumle	05-650	6478

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BACHMAN & LAPOINTE, P.C.
900 CHAPEL STREET
SUITE 1201
NEW HAVEN, CT 06510

EXAMINER	
KEENAN, JAMES W	

ART UNIT	PAPER NUMBER
3652	

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06/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,006	BAUMLE ET AL.	
	Examiner	Art Unit	
	James Keenan	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 May 2009* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step of fully automatically controlling comprising determining a weight and quantity of goods using a weighing device **and** a device for controlling quantity (claims 29 and 36; emphasis added) must be shown or the feature(s) canceled from the claim(s). **No new matter should be entered**. Note that as best understood from the disclosure as originally filed, there is a single means for determining weight and quantity, not separate devices.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The amendment filed 5/21/09 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the showing in amended figure 1 of control device 20, illumination device 22, compartment indicator 24 on rack 26, weighing device 28, and protective device 30 in particular locations on or relative to the vehicle 3. There is no support in the disclosure as originally filed that these elements would necessarily be located in the specific locations now shown in figure 1. Further, the recitation in claims 29 and 36 of both a weighing device and a device for controlling the quantity is considered new matter, as alluded to above in the drawing objection, in that the disclosure as originally filed provides support only for a single means for determining weight and quantity, not separate devices.

Applicant is required to cancel the new matter in the reply to this Office Action.

3. Claim 38 is objected to because of the following informalities: line 2, "suspend" should be --suspended--. Appropriate correction is required.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 29-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Additionally, claims 29-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 29 recites that the step of controlling the picking up and transferring of goods comprises "determining a weight and a quantity of said goods ... using a weighing device and a device for controlling said quantity both controlled by the vehicle control " and "comparing the weight and quantity ... with predetermined values". Apparatus claim 36 recites analogous structure. As noted above and in the previous Office action, the disclosure as originally filed fails to set forth the manner in which this is done or show or describe structure for performing such a function, and particularly fails to show separate weighing and quantity determining devices.

Applicant asserts that a sensor or scales which measures the weight of goods being picked up may be connected to the forks. While this may be a feasible way to measure the weight, it is not necessarily the only way to do so, and the fact remains that it simply was not disclosed as such in the originally filed specification. Further, it is noted that claim 29 is limited to the fully automatic embodiment of picking up and transferring goods; i.e., no order picker is required. The only specific written description of such an

embodiment is found on page 3, par. 11, which states that instead of an order picker, "the vehicle could also be assigned a robot device which carries out the pick-up or transfer". Such a device is not shown, and it is unclear whether it would even have forks, as only the embodiment requiring an order picker discloses forks. Applicant further asserts that "the computer can be preprogrammed to know the weight ... and can compute the quantity from the measured weight". Again, while this may be feasible, it is not necessarily the only way to determine quantity, and it simply was not disclosed as such in the original specification. Finally, it is noted that if this is indeed the manner in which the quantity of items is determined, it is unclear why applicant feels this would in any way be a patentable distinction over the art, as applicant argues (see, e.g., page 10, lines 8-11, and page 10, last line to page 11, first line). If one of ordinary skill in the art would know that the manner in which the quantity of goods is determined is by simply computing the quantity from the measured weight, in spite of the lack of any specific disclosure of same, as applicant explicitly asserts, then this could only be because such a means of determining quantity was so well known and art recognized as to be admitted prior art. As will be shown in the art rejections that follow, such a means of determining quantity is indeed well known.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2, it is not clear if the recitation of a "weighing device" is the same as that recited in claim 35 or an additional such device;

and line 3, it is not understood what is meant by "the goods being assigned to the ... track".

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 29, 30, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbinet (US 5,730,252) in view of Galli (US 5,409,342, previously cited).

Herbinet shows a method of order picking of goods located in a store, comprising a vehicle movable along storage aisles (col. 2, lines 18-21), moving the vehicle to a pick location (col. 2, lines 30-31), picking up and transferring goods (col. 2, lines 32-34), controlling the picking up and transferring by determining the weight and quantity of goods using a weighing device and quantity controlling device (col. 2, lines 38-42, col.

3, lines 51-55, and col. 5, lines 3-8), and comparing the weight and quantity of goods with predetermined values (col. 2, lines 42-47 and 60-67, and col. 5, lines 41-51).

Herbinet shows that the steps of moving the vehicle and picking up and transferring the goods is done by an order picker (acting in response to computerized instructions) rather than being fully automated.

Galli shows a method of picking up and transferring goods in a store 10 by use of a fully automated guided vehicle 13 which moves along an aisle 14 to a predetermined pick location (fig. 1), the transfer being controlled fully automatically by determining the weight of the goods on the vehicle (col. 3, lines 53-61). Galli explicitly states that fully automatic operation is an advantage over known systems requiring an operator (col. 1, lines 52-63 and col. 2, lines 16-21).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the process of Herbinet by fully automating the movement of the vehicle to a pick location and the picking up and transferring of goods between the pick location and the vehicle, as shown by Galli, as this would preclude the necessity of a separate operator/order picker, resulting in less errors, reduced operating costs, and increased efficiency.

Re claim 30, note display unit 17 of Herbinet (col. 4, lines 45-49 and 63-67) and transceivers 22, 23 of Galli (col. 4, lines 8-26), both for indicating the pick location.

Re claim 33, note the unlabeled pantograph of Galli for vertically adjusting the table on which goods are placed (col. 3, lines 57-61 and col. 4, lines 57-59). To have

included this feature in the fully automated device of Herbinet would have been a obvious design expediency for automatically transferring articles.

Re claim 34, Herbinet teaches transporting as many as six cartons 4 (goods containers) on the vehicle, at least one of which is empty (at least initially).

Re claim 35, Herbinet is considered to show "transporting an order picker with the vehicle", as broadly claimed.

10. Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbinet in view of Galli, as applied to claim 29 above, and further in view of Drapeau (US 3,908,800).

Although Herbinet and Galli show indicating the pick location, as noted above., they do not do so by illuminating the pick location from the vehicle or with an indicator on the rack.

Drapeau teaches an illuminated indicator 13 in a rack for indicating to an order picker the proper location of articles to be picked.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the process of Herbinet by illuminating the pick location with an indicator on the rack, as taught by Drapeau, for easy identification of the proper pick location in the event an order picker was used instead of the fully automated picking.

Re claim 31, illuminating the pick location from the vehicle instead of on the rack would have been an obvious alternative means of illuminating the pick location and would avoid the necessity of providing illumination means at every pick location.

11. Claims 29, 30, 33-42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbinet in view of Fenn (US 4,820,101, previously cited).

As noted above, Herbinet is not fully automated.

Fenn shows a method and system for picking up and transporting goods 4 in a storage yard 5 ("store", as broadly claimed), including a vehicle 2 which travels under fully automated control of a computer 6 to pick up desired goods in a particular location along an "aisle" of the store, wherein the weight and quantity of the goods is determined on the vehicle and compared with a desired value (col. 17, lines 14-41 and line 56 to col. 18, line 18). Fenn teaches an optional operator who can monitor and/or manually control or override the automatic operation (col. 9, lines 34-44).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the operation of the process of Herbinet by providing fully automated control of the vehicle movement and the picking up and transferring of goods in addition to an operator, as taught by Fenn, to provide improved control and operation of the vehicle while still allowing operator intervention in the event of a malfunction of the automated control system.

Re claim 30, both Herbinet as noted above and Fenn (col. 10, line 36 to col. 11, line 37) teach indicating the pick location by the vehicle.

Re claim 33, the vehicle of Fenn is a vertically adjustable crane which automatically adjusts to the desired storage height.

Re claim 36, Herbinet shows an apparatus essentially as claimed, as noted above, but does not show an electric overhead suspended track along which the vehicle is guided. Fenn shows the vehicle to be a crane which may operate on an overhead suspended track (col. 6, lines 25-30). It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Herbinet by providing an overhead suspended track along which the vehicle was guided with a rail guide, as taught by Fenn, as this would simply be an alternate equivalent means of guiding an automated vehicle along rows of a store, the use of which in the apparatus of Herbinet would neither require undue experimentation nor produce unexpected results. Although Fenn does not disclose the use of an electric rail, the use thereof is considered a mere further design expediency, for example in an indoor environment in which a combustion engine would be undesirable.

Re claim 38, the overhead track of Fenn is considered to form "a pick-up or transfer plane", as broadly claimed.

Re claim 39, Herbinet shows the pick-up or transfer plane to be a platform.

Re claim 40, as noted above, Fenn shows a vertically adjustable pick-up or transfer plane.

Re claim 41, as noted previously, both Herbinet and Fenn provide for an order picker/operator on the vehicle.

Re claim 42, as noted previously, both Herbinet and Fenn teach identification means on the vehicle for indicating the goods to be removed.

Re claim 44, although neither Herbinet nor Fenn discloses a "protective device for monitoring and securing the vehicle", the use thereof is considered an obvious and well known safety measure, particularly in view of the extremely broad nature of such terminology and applicant's lack of show or describing any structural details of such a device.

12. Claims 31, 32 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbinet in view of Fenn, as applied to claims 29 and 36 above, and further in view of Drapeau.

Although Herbinet and Fenn show indicating the pick location, as noted above., they do not do so by illuminating the pick location from the vehicle or with an indicator on the rack.

Drapeau, as noted above, teaches an illuminated indicator 13 in a rack for indicating to an order picker the proper location of articles to be picked.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the process and apparatus of Herbinet by illuminating the pick location with an indicator on the rack, as taught by Drapeau, for easy identification of the proper pick location in the event an order picker was used instead of the fully automated picking.

Re claim 31, illuminating the pick location from the vehicle instead of on the rack would have been an obvious alternative means of illuminating the pick location and would avoid the necessity of providing illumination means at every pick location.

13. Applicant's arguments with respect to claims 29-44 have been considered but are moot in view of the new ground(s) of rejection.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Keenan/
Primary Examiner
Art Unit 3652

jwk
5/29/09